

What is claimed is:

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- 5 1. A thermoplastic resin composition containing an oxygen absorbing agent, wherein a resin matrix of the thermoplastic resin composition is substantially non-compatible and is composed of blends of a plurality of thermoplastic resins and elastomers, and the thermoplastic resins and elastomers form a non-uniformly distributed structure in the resin matrix.
 - 10 2. An oxygen-absorbing resin composition according to claim 1 wherein the non-uniformly distributed structure is a multilayer distributed structure.
 - 15 3. An oxygen-absorbing resin composition according to claim 1 wherein one of the non-compatible thermoplastic resin or elastomer is a propylene-type polymer, and the other is an ethylene-type polymer.
 - 20 4. An oxygen-absorbing resin composition according to claim 1 wherein the blend is composed of (A) a propylene-type polymer and (B) an ethylene-type polymer at a A:B weight ratio of 100:1 to 1:1.
 5. An oxygen-absorbing resin composition according to claim 1 wherein the oxygen absorbing agent is an iron-type oxygen absorbing agent.
 - 25 6. An oxygen-absorbing resin composition according to claim 1 wherein the oxygen absorbing agent is contained in an amount of 1 to 200 % by weight based on the blend.
 7. An oxygen-absorbing resin composition according to claim 1 wherein the oxygen absorbing agent is an oxygen absorbing agent particles composed of a reducing iron powder and a layer of an oxidation promotor or a catalyst which sticks to the surface of the reducing iron powder.
 - 30 8. An oxygen-absorbing resin composition according to claim 7 wherein the oxygen absorbing agent is oxygen absorbing agent particles having the oxidation promotor or the catalyst which is present in an amount of 0.1 to 5 %
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Ans.

~~by weight based on the reducing iron powder, and has a specific surface area of at least 0.5 m²/g and an apparent density of not larger than 2.2 g/cc.~~

9. An oxygen-absorbing resin composition according to claim 7 wherein the oxygen absorbing agent particle has an average particle diameter of 10 to 50 μ m as measured by a laser scattering method and an aspect ratio (short axis size/long axis size) of 0.6 or below being present in an amount of at least 50% and is a flat or spindle-shaped particle having a compression degree of at least 20%.

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~~10. An oxygen-absorbing resin composition according to claim 7 wherein the oxygen absorbing agent particle is obtained by dry milling a reducing iron powder and a powder of an oxidation promotor or a catalyst.~~

11. An oxygen-absorbing agent comprising; oxygen-absorbing agent particles which comprise a reducing iron powder and an oxidation-promoting agent or a catalyst firmly adhered to surfaces of said reducing iron powder, and which has a specific surface area of not smaller than 0.5 m²/g and an apparent density of not larger than 2.2 g/cc, and in which the oxidation-promoting agent or the catalyst is present in an amount of from 0.1 to 5% by weight per the reducing iron powder.

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12. An oxygen-absorbing resin composition obtained by blending 1 to 200 parts by weight of an oxygen-absorbing agent according to claim 11 into 100 parts by weight of a thermoplastic resin.

13. An oxygen-absorbing multilayer plastic container molded from a laminated body obtained by laminating a thermoplastic resin layer having no oxygen absorbing agent compounded on both sides of a layer composed of the oxygen-absorbing resin composition according to claim 1.

14. An oxygen-absorbing multilayer plastic cap which is molded from a laminated body obtained by laminating a thermoplastic resin containing no oxygen-absorbing agent

on both sides of a layer composed of the oxygen-absorbing resin composition described in claim 1.

15 15. A liner material for caps which contains a layer composed of the oxygen-absorbing resin composition according to claim 1.

10 16. An oxygen-absorbing packaging material wherein from the inside of the packing toward the outside of the packing, a laminated body is obtained by conjugating a laminated body composed of a polyolefin inner surface material/an oxygen absorbing agent layer composed of a composition comprising a polyolefin and an oxygen
15 absorbing agent/a polyolefin buffering layer, a laminated body composed of an aluminum foil and an oriented nylon and/or a polyester, or an inorganic vapor-deposited plastic film in a position relationship so that the aluminum foil or the inorganic vapor-deposited layer is opposed to the oxygen absorbing laminate.

20 17. An oxygen-absorbing packaging material according to claim 16 wherein the polyolefin in the oxygen-absorbing agent layer is composed of a plurality of blends of polyolefins which are substantially non-compatible, and the plurality of polyolefins form a non-uniformly distributed structure.

25 18. An oxygen-absorbing packaging material of claim 17 wherein the polyolefins are a prolylene-type polymer (A) and an ethylene-type polymer (B), and are a blend of polymers A:B in a weight ratio of 100:1 to 1:1.

30 19. An oxygen-absorbing packaging material of claim 16 wherein the oxygen absorbing agent is composed of the reducing iron powder and a layer of an oxygen promoting agent and a catalyst stuck to the surface of the reducing iron powder, and the oxygen promoting agent and the catalyst are present in an amount of 0.1 to 5% by weight based on the reducing iron powder, and the oxygen
35 absorbing agent particle has a specific surface area of at

least 0.5 m²/g and an apparent density of 2.2 g/cc.

